



Effect of dust storms on the environment and climatic conditions of the Indo-Gangetic basin

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The desertification and arid climate of the western part of India, are the sources of the dust storms that are found to increase. These dust events are being observed in the Indo-Gangetic plains during pre-monsoon period up to Kanpur and beyond. The remote sensing sensors are now capable of monitoring the land and atmosphere, the dust events and the changing atmosphere properties are seen clearly from the satellite measurements. The aerosol optical properties derived from the satellite observations serve as a measure of dust characteristics. The detailed analysis of satellite remote sensing data for the last 5 years (2000-2005) have been carried out together with ground data (Aerosol Robotic Network - AERONET and Central Pollution Control Board - CPCB) indicate significant increase of aerosol loading in the basin due to these dust storms during pre-monsoon period.. In the present paper, we will discuss the characteristics of the dust and its impact on the changing climatic, hydrological and agriculture productivity of the basin.